

## DETAILED LOG

Hole Number: ES08-131

Units: METRIC

Project Name: Norway - Espedalen	Primary Coordinates Grid: UTM84-32N	Destination Coordinates Grid: UTM:	Collar Dip: -80.00
Project Number: 201	North: 6801126.00	North: 61.34	Collar Az: 230.00
Location: Surface	East: 535826.00	East: 9.67	Length: 313.21 (m)
	Elev: 942.00	Elev: 942.00	Start Depth: 0.00 (m)
Date Started: Jan 14, 2007	Collar Survey: N	Plugged: N	Contractor: Arctic Drilling A/S
Date Completed: Jan 19, 2008	Multishot Survey: N	Hole Size: BQ	Core Storage: tyristrand
Logged By: awnor	Pulse EM Survey: N	Casing: Left in Hole	Final Depth: 313.21 (m)

Comments: To test down-dip extension of mineralization identified in ES05-27 that intersected thin zone associated with UTEM geophysical plate. No significant mineralization encountered. Intercept remotely corresponds to interstion of ES05-27 and verifies shallow dipping horizon. Rock was drilled 42m into basement volcanic rocks.

## Results

Very weak disseminated mineralization encountered from  
99.38-99.80:1-3% fg diss Po (Tr. Pn?) and tr. local Cpy

## Sample Averages

Detailed Lithology		Assay Data							
From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
0	16.40	O/B, Overburden							

Hole Number: ES08-131

Units: METRIC

Detailed Lithology		Lithology	Assay Data						
From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
16.40	99.80	ANOR, Anorthosite	PG05758	97.70	98.70	1.00	0.0060	0.0025	0.0005
		Anorthosite (tectonized and sausseritized anorthosite in old logs)	PG05759	98.70	99.08	0.38	0.1480	0.0780	0.0090
		Fine grained. Light grey/green. Relatively homogenous on small scale with greenish, more chloritic patches. Mottled appearance between grey and green (mixed hybrid unit). Strongly foliated at high angles (~80+) degrees with undulating or lensoidal fabric. Occasional lighter coloured, dm-wide qtz breccia veins. Unit becomes whiter below 63m has more of a massive/recrystallized appearance with less foliation, and locally brecciated. Not mineralized. Unit crosscut by several thin mafic dykes (see sub-litho).	PG05761	99.08	99.38	0.30	0.0030	0.0025	0.0005
		Texture	PG05762	99.38	99.80	0.42	0.0850	0.0760	0.0050
		65.15 - 67.37 : MASS Massive							
		Locally more massive, recrystallized section with >90% plag. Weak sericite alteration and minor bx appearance with x-cutting veinlets.							
		Structure							
		59.25 - 60.00							
		Moderate bx and associated thin qtz veinlets.							
		64.00 - 65.15 : FOL Foliated, 85 Deg to CA							
		Very strong foliation with v. thin chloritic stringers							
		68.73 - 70.36							
		Strongly deformed and foliated between mafic dykes with undulating fabric and very thin chlorite-fuschite strings							
		MINOR INTERVALS:							
		Minor Interval:							
		17 - 21.2 MD, Mafic Dike							
		Mafic Dyke.							
		Green. Fg. Homogenous, weak to moderately foliated @80 dtca (same as in anorth). Gradational and strongly deformed upper and lower contacts. Tr vfg Py locally.							
		Minor Interval:							
		40.7 - 44.9 MD, Mafic Dike							
		Mafic Dyke							
		Green. Fg. Homogenous, weak to moderately foliated @80 dtca (same as in anorth). Gradational and strongly deformed upper and lower contacts.							
		Minor Interval:							
		67.37 - 68.73 MD, Mafic Dike							
		Mafic Dyke							
		Green, fg, homogenous, foliated. Sharp upper ct at 85 dtca. Slightly gradational over ct.							
		Minor Interval:							
		70.36 - 79.05 MD, Mafic Dike							
		Mafic Dyke-							
		As above. Sharp upper and lower contact at 80 dtca							

Hole Number: ES08-131

Units: METRIC

Detailed Lithology		Assay Data							
From (m)	To (m)	Lithology	Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
		<p>MINOR INTERVALS:</p> <p>Minor Interval: 80.6 - 87.74 MD, Mafic Dyke Mafic Dyke Green. Fg. Homogenous, weak to moderately foliated. Sharp upper and lower contact at 80-85 dtca</p> <p>Minor Interval: 98.7 - 99.08 MD, Mafic Dyke Mafic Dyke Grey/green. Homogenous. Foliated. Fg with 7% mg biotite phenocrysts. Separated with 0.3m sliver/inclusion of anorthosite.</p> <p>Minor Interval: 99.38 - 99.8 MD, Mafic Dyke Mafic Dyke (weakly mineralized) Grey/green. Homogenous. Foliated. Same as overlying unit. Mineralized with 1-3% fg diss sulphides including ~2% Po (Tr. Pn), 1% Py and tr. Cpy locally. Mineralization occurs along veinlets but is predominantly diss. Sharp upper and lower contacts.</p> <p>Mineralization 99.38 - 99.80 99.38 - 99.80 : PO Pyrrhotite, DIS Disseminated, 2% 99.38 - 99.80 : PY Pyrite, DIS Disseminated, 1%</p>							
99.80	101.90	GAB, Gabbro	PG05763	99.80	100.73	0.93	0.0070	0.0025	0.0050
		Anorthositic Gabbro	PG05764	100.73	101.90	1.17	0.0060	0.0060	0.0040
		Beige Green, banded and strongly deformed at 70 dtca. Banded with thin mm wide layers of feldspar and green pyroxenes/amphiboles. Gradational contact with underlying dyke. Contains 2% vfg black, equigranular flecs. Heterogenous anorthosite unit with mafic dykes?							
101.90	102.90	UM, Ultramafic	PG05765	101.90	102.90	1.00	0.1110	0.0590	0.0090
		Ultramafic Black, fg, massive, homogenous. Weakly magnetic. Unit is deformed and moderately sheared with gaugy upper and lower contacts. Mm-sized Pyroxenes blebs. Waxy green alteration locally. Tr-1% vfg diss Po mineralization locally							

Hole Number: ES08-131

Units: METRIC

Detailed Lithology		Lithology	Assay Data						
From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
102.90	138.56	<p>ANOR, Anorthosite</p> <p>Anorthosite Fine grained. Light grey/green. Relatively homogenous on small scale with greenish, more chloritic patches. Mottled appearance between grey and green (mixed hybrid unit). Strongly foliated at high angles (~80+) degrees with undulating or lensoidal fabric. Occasional lighter coloured, dm-wide qtz breccia veins. Unit becomes whiter below 63m has more of a massive/recrystallized appearance with less foliation, and locally brecciated. Not mineralized. Appearance mm-sized fuchsite alteration stringers.</p> <p>Structure 113.40 - 113.90 Minor brecciation with 7-10 crosscutting qtz veinlets that are often vuggy. Not mineralized.</p> <p>MINOR INTERVALS: Minor Interval: 104.78 - 105.09 MD, Mafic Dyke Mafic Dyke Green, fg, foliated, homogenous. Sharp upper and lower contact @60 dtca Minor Interval: 106.1 - 107.58 MD, Mafic Dyke Mafic Dyke Green, fg, foliated, homogenous. Sharp upper and lower contact @60 dtca. ~3% patchy hematite alteration. Minor Interval: 109.12 - 113.4 MD, Mafic Dyke Mafic Dyke. Green, fg, foliated homogenous. Strongly broken/faulted core.</p> <p>Structure 111.75 - 113.40 Blocky and strongly broken core Minor Interval: 124.95 - 126.82 MD, Mafic Dyke Mafic Dyke Green, fg, massive, homogenous. Weak foliation @80 dtca. Sharp upper ct at 65 dtca and lower ct @80 dtca. Not mineralized. Minor Interval: 136.1 - 137 MD, Mafic Dyke Mafic Dyke Green, fg, homogenous. 2% bio flecs up to 2mm. Trace local pyrite. UC @ 45 dtca with uneven, sharp lower contact.</p>	PG05766	102.90	103.90	1.00	0.0150	0.0090	0.0010
138.56	142.96	<p>MD, Mafic Dyke</p> <p>Mafic Dyke Green, fg, homogenous. Foliated @50 dtca. Sharp upper and lower ct's at 65-70. Tr. vfg pyrite at contacts. Strongly deformed and crenulated fabric from 138.85-139.7 with weak magnetic signature.</p>							



Hole Number: ES08-131

Units: METRIC

Detailed Lithology		Lithology	Assay Data						
From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
187.45	205.41	MD, Mafic Dike Green, fg, homogenous. Moderately foliated throughout @75 dtca. Not mineralized. Gradational banded upper contact @65 dtca and sharp, convoluted lower contact. Predominantly fg plagioclase and amphibole as well as up tp 3% vfg black specs of unknown mineral. Structure 188.00 - 188.10 : FOL Foliated, 70 Deg to CA 200.00 - 200.01 : FOL Foliated, 75 Deg to CA							
205.41	213.66	ANOR, Anorthosite Anorthosite Fine grained. Light grey/green. Relatively homogenous on small scale with greenish, more chloritic patches. Moderately foliated from 70-80 dtca. with undulating or lensoidal fabric. Occasional lighter coloured, dm-wide qtz breccia veins. Not mineralized. Mm sized fuschite wisps. Colour changes randomly from creamy green/grey to cream white. Creamy sections could be due to strong sericite alteration (or sausseritization). 3-5% late stage crosscutting quartz veinlets. Foliation, however strong is highly convoluted with variable fol angles.							
213.66	219.33	MD, Mafic Dike Green, fg, homogenous. Moderately foliated throughout @70-75 dtca. Sharp and weakly bx upper/lower contacts @65 dtca and sharp, convoluted lower contact. Predominantly fg plagioclase and amphibole as well as up tp 3% vfg black specs of unknown mineral. Structure 213.66 - 219.33 Occasional carbonate covered fracture coatings are mineralized with fg pyrite. On fractures only							
219.33	264.25	ANOR, Anorthosite Anorthosite Fine grained. Light grey/green. Relatively homogenous on small scale with greenish, more chloritic patches. Moderately to highly deformed with thin, wavy foliation at intermediate to high angles tca. ore of a hybrid anorthosite less foliated that above units. Occasional lighter coloured, dm-wide qtz breccia veins. Not mineralized. Mm sized fuschite wisps. Creamy sections could be due to strong sericite alteration (or sausseritization). 3-5% late stage crosscutting quartz veinlets. Foliation, however strong is highly convoluted with variable fol angles.  MINOR INTERVALS: Minor Interval: 254.16 - 257.7 MD, Mafic Dike Mafic Dyke Green. FG. Weakly foliated. Homogenous. Typical thin mafic dyke. Not magnetic. with sharp and weakly brecciated upper and lower contacts to anorthosite.							

Hole Number: ES08-131

Units: METRIC

Detailed Lithology		Lithology	Assay Data						
From (m)	To (m)		Sample Number	From (m)	To (m)	Length (m)	Ni%	Cu%	Co%
264.25	313.20	MV, Mafic Volcanic Mafic Volcanics Very similar to those encountered at base of ES08-130. Rock unit is partly a hydrid between mafic volcanics and fg anorthositic material. Green-Light green. Fine grained. Very homogenous. Moderately foliated throughout @65-70 dtca. Banding is sub-mm scale. No mineralization.							
313.20	313.21	EOH, End of Hole							

## Samples

Sample Number	From (m)	To (m)	Ni%	Cu%	Co%
Sample Type	ASSAY				
PG05758	97.70	98.70	0.0060	0.0025	0.0005
PG05759	98.70	99.08	0.1480	0.0780	0.0090
PG05761	99.08	99.38	0.0030	0.0025	0.0005
PG05762	99.38	99.80	0.0850	0.0760	0.0050
PG05763	99.80	100.73	0.0070	0.0025	0.0050
PG05764	100.73	101.90	0.0060	0.0060	0.0040
PG05765	101.90	102.90	0.1110	0.0590	0.0090
PG05766	102.90	103.90	0.0150	0.0090	0.0010